

ABSTRACT OF THE DISCLOSURE

A semiconductor device for demodulating a received signal in a satisfactory manner when the frequency of the received signal deviates. The semiconductor device is used in a receiver having a reference oscillator. The semiconductor device includes a local oscillator, a PLL controller, and a comparator. The local oscillator generates a local signal having a local frequency. The PLL controller controls the local frequency in accordance with a reference signal of the reference oscillator. The comparator compares the frequency of the received signal with the frequency of the reference signal or the phase of the received signal with the phase of the reference signal to generate an error signal for correcting the local frequency in accordance with the comparison.